

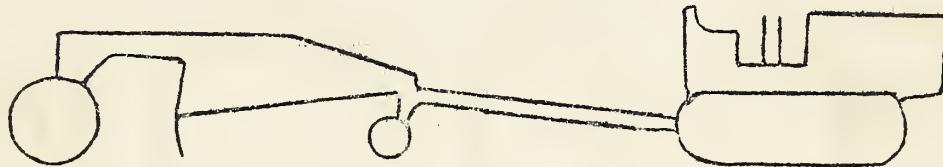
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# CONSTRUCTION



## HINTS

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE

Vol. 1      Washington, D. C.      August 10, 1935      No. 7

The White Mountain Forest Region 7 is credited with an ingenious and economical solution of axle breakage on 105 cubic foot portable compressors.

The compressors come delivered with steel tires, but due to the rough mountainous roads over which these units must be moved, breakage of axles is not infrequent. The solution was the purchase, at a cost of \$15.00 of a spoke cutting gauge which was used in the cutting of the steel tires off the old wheel at a point which enabled a 16 x 4:50 drop center type rim to be welded on the spokes.

Goodyear Farm Implement type tires, size 6:00 x 16 were used. Inflated to 25 pounds, these tires have not only eliminated axle breakage, but they also absorb all the vibration of the machine when operating, a feature which should materially lessen adjustment and prolong the life of the machine.

Experience has demonstrated that the compressor can be moved over soft ground by hand, where formerly a truck or tractor was required to move it, and it can be trailed over the road at a speed of 15 to 20 miles per hour, behind a pickup truck.

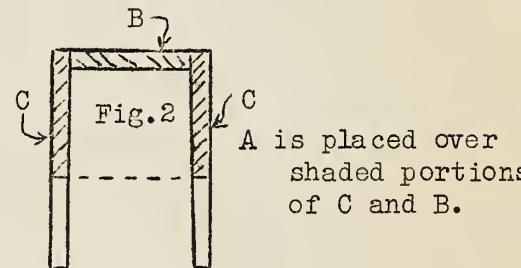
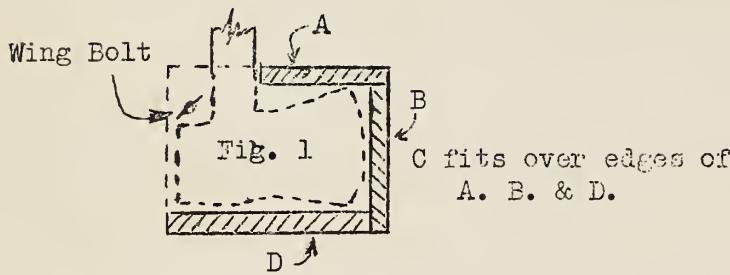
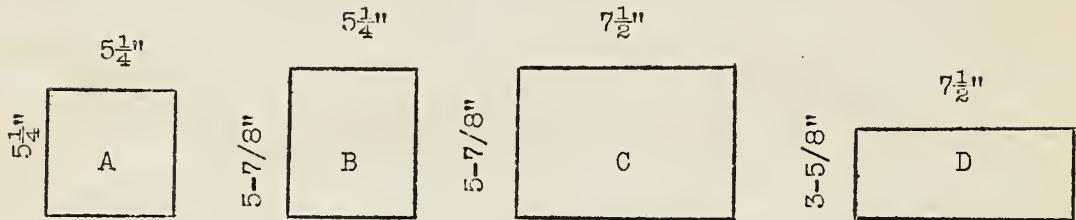
The approximate cost of 4 drop center rims and 4 tires and tubes is \$44.00.

(Over)

A METHOD OF PROTECTING EDGED TOOLS  
 Used on the  
 White Sulphur District  
 Monongahela National Forest

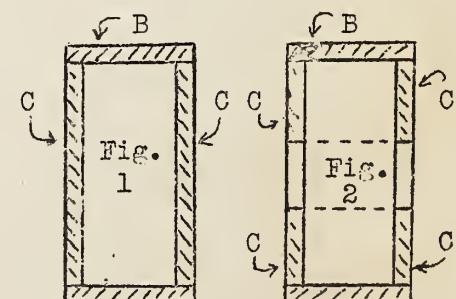
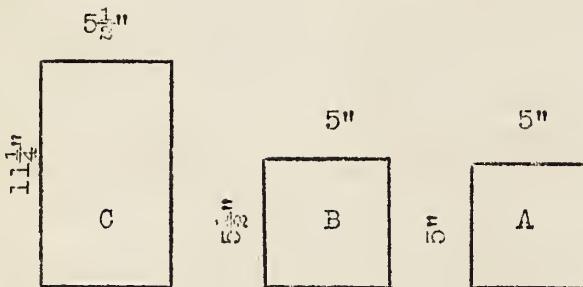
By W. A. Medesey, 7-5-35

A PLAN FOR THE PROTECTION OF SINGLE BITTED AXES

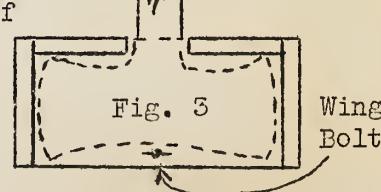


First cut 2 pieces of C, 1 of A, 1 of D, and 1 of B. Next fit B and the 2 C's together as shown in figure 2 which is a top view - then fit A over C and B as shown in figure 2. Next fit D as shown in figure 1. Then place three single bitted axes in box and put in 6" wing bolt as shown in Fig. 1. One box should be made as model and others built according to size of axes.

A PLAN FOR THE PROTECTION OF DOUBLE BITTED AXES

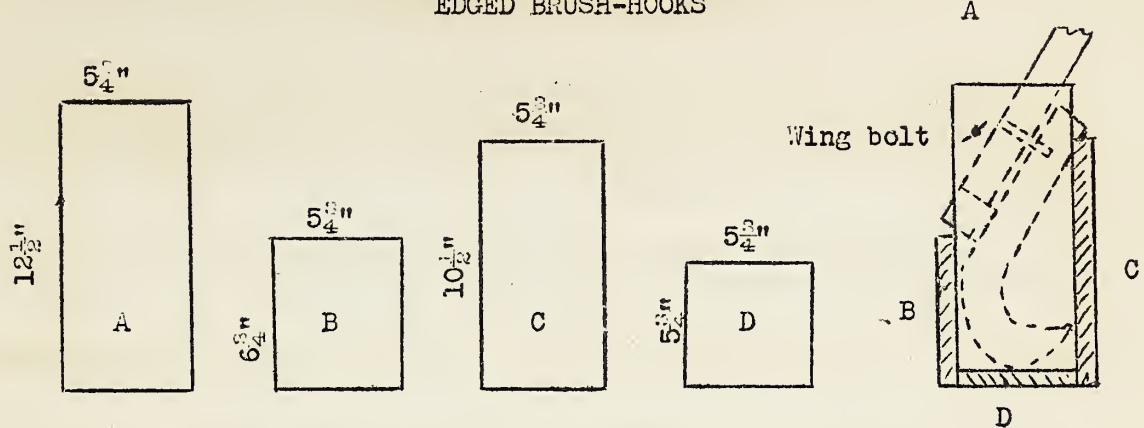


The two A's are  
 fitted over shaded  
 portions of B & C.

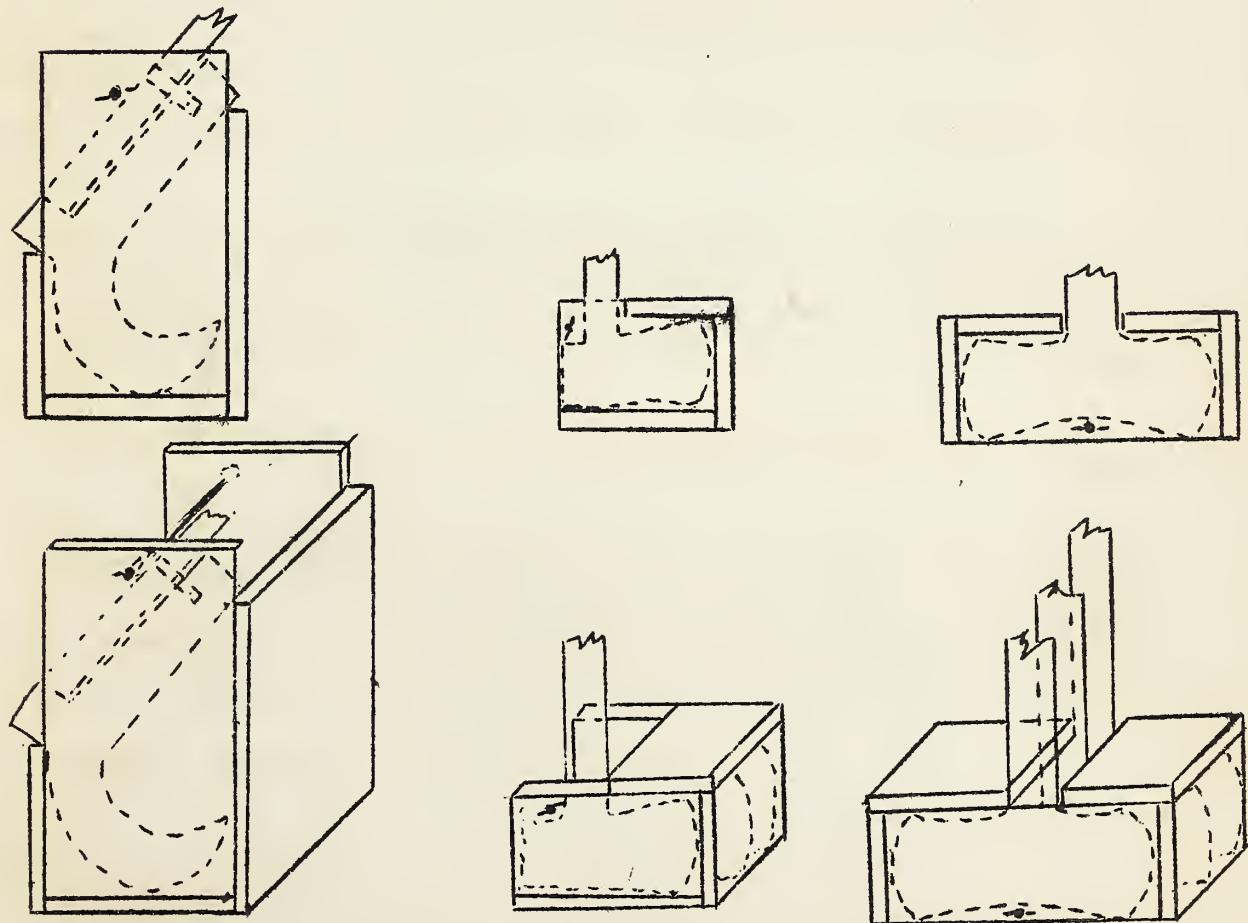


First cut out 2 pieces each of C, B & A. Next nail B to 2 B's & 2 C's together as in Fig. 1. Next place the A's on the edges of C & B as shown in Fig. 2. Next take 3 DB axes and put handles up through top of box. Then place 6" wing bolt thru 2 C's across the eye's of the 3 axes as shown in Fig. 3. The lengths of the bits of all double bitted axes are not the same so one box should be made as a model and the others built according to the size of the axes.

A PLAN FOR THE PROTECTION OF SINGLE  
EDGED BRUSH-HOOKS



Cut out two pieces of A, 1 of B, 1 of C, and 1 of D. Fit together as shown in figure at right. Wing bolt is 6" long. Wing bolt should rest snugly against handle as indicated in sketch.



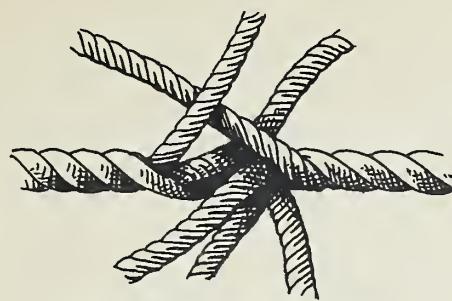
## A POCKET KNIFE PLANIMETER

Areas of small figures may be easily measured by use of a pocket knife and some form of a measuring scale. The one requirement being that the knife have blades opening at either end. The procedure for measuring areas is as follows:

1. Locate the center of the area to be measured as closely as possible by eye. Mark this point.
2. Draw a straight line from this center point perpendicularly to the upper edge of the area.
3. Half open the most pointed blade of the knife and completely open the blade at the opposite end of the knife.
4. Place the point of the half opened blade on the point at the center of the area allowing the other blade to extend its full length along the paper. Press the extended blade firmly to the paper making a mark of its position.
5. Traverse the area in a clockwise direction using the half opened blade as a pointer. Hold the blade very lightly allowing the extended blade to move freely, taking care, however, that the extended blade does not slide horizontally on the paper. The starting point is the center of figure and the line drawn from the center to the edge of the figure is followed both in leaving and returning to the center point.
6. After traversing the figure mark the new position of the extended blade.
7. Measure the distance between original and the last position of the extended blade. This distance multiplied by the distance from the starting point of the traverse or center to the point where the extended blade originally rested gives the area of the figure in square inches or any other unit you have used in making your measurements.
8. By knowing the scale of the figure the area can easily be expressed in square feet, square miles, acres, etc.

This explanation is necessarily somewhat verbose but it is suggested that a known area of 4 or 9 square inches be drawn and the method tested. After one or two trials the system becomes clear. It is very easy to remember this simple procedure and it should prove valuable in calculating areas of fires, grazing allotments, timber types, etc. which have been sketched on maps in the field.

Condensed from Indian Forester. C.A.C.



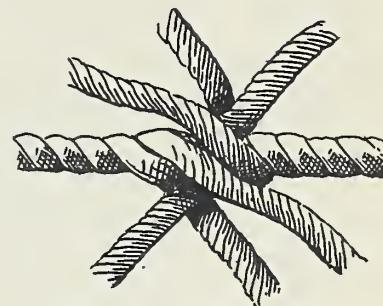
Short Splice



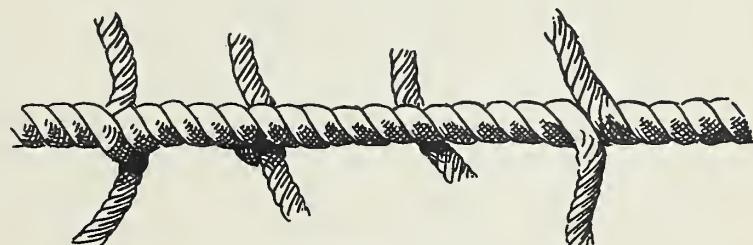
Short Splice



Short Splice



Long Splice



Long Splice



Eye Splice



Eye Splice



Eye Splice



Eye Splice

